

4-12-04

Express Mail Label No. EU746729174US

Attorney Docket No. 63049.001012

Attorney Customer No. 27682



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of: )  
)  
Ronald D. BLUM et al. ) Group Art Unit: 2873  
)  
Application Number: 10/772,917 ) Examiner: Unassigned  
)  
Filed: February 5, 2004 )  
)  
Title: METHOD AND APPARATUS FOR )  
CORRECTING VISION USING AN )  
ELECTRO-ACTIVE PHOROPTER )

**INFORMATION DISCLOSURE STATEMENT**  
**TRANSMITTAL LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is an Information Disclosure Statement and accompanying form PTO-1449 in connection with the above-identified patent application.

- ☒ [ X ] No additional fee for submission of an IDS is required.
- ☐ [ ] The fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) is also enclosed.
- ☐ [ ] A certification under 37 C.F.R. §1.97(e) is also enclosed.
- ☐ [ ] A certification under 37 C.F.R. §1.97(e), a petition requesting consideration of the information disclosure statement, and the petition fee of \$130.00 as set forth in 37 C.F.R. §1.17(i) are also enclosed.
- ☐ [ ] Charge \$\_\_\_\_\_ to Deposit Account No. 08-3436 for the fee due.
- ☒ [ X ] An Express Mail Certificate Under 37 C.F.R. §1.10.

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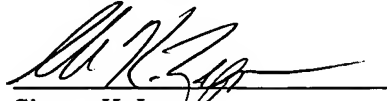
[ X ] A self-addressed stamped return postcard.

The Commissioner is hereby authorized to charge any appropriate fees that may be required by this paper to Deposit Account No. 08-3436.

Date: April 9, 2004

Respectfully submitted,

HUNTON & WILLIAMS  
Riverfront Plaza, East Tower  
951 East Byrd Street  
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Shawn K. Leppo  
Registration No. 50,311



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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Ronald D. BLUM et al.

Application Number: 10/772,917

Filed: February 5, 2004

Title: METHOD AND APPARATUS FOR  
CORRECTING VISION USING AN  
ELECTRO-ACTIVE PHOROPTER

Group Art Unit: 2873

Examiner: Unassigned

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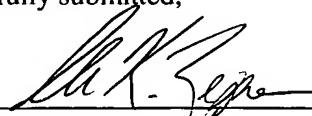
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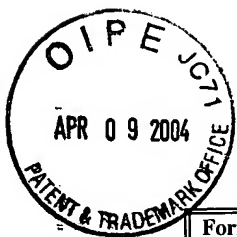
Attached hereto is a duly completed Form PTO-1449 listing references which may be considered either material or helpful to the examination of the above-identified patent application. Please note that Form PTO-1449 list references which were submitted in the priority applications and consequently duplicate copies of these references are not attached hereto. It is requested that all these references be considered by the Examiner and officially made of record.

Date: April 9, 2004

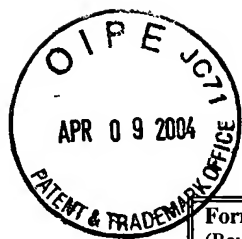
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Shawn K. Leppo  
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<b>Form PTO-1449</b> (Rev. 8-83)		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No.: 63049.001012		Application No.: 10/772,917	
<b>INFORMATION DISCLOSURE STATEMENT</b>  (Use several sheets if necessary)							
				Applicant: Ronald D. Blum et al.			
				Filing Date: February 5, 2004		Group: Unassigned	
<b>U.S. PATENT DOCUMENTS</b>							
Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	1	Re. 35,691	12/16/97	Theirl et al.			
	2	D 298,250	10/25/88	Kildall			
	3	D 342,063	12/7/93	Howitt et al.			
	4	D 350,342	9/6/94	Sack			
	5	2,437,642	3/9/48	Henroteau			
	6	2,576,581	11/27/51	Edwards			
	7	3,161,718	12/15/64	de Luca			
	8	3,245,315	4/12/66	Marks et al.			
	9	3,614,215	10/19/71	Mackta			
	10	3,738,734	6/12/73	Tait et al.			
	11	4,174,156	11/13/79	Glorieux			
	12	4,181,408	1/1/80	Senders			
	13	4,190,330	2/26/80	Berremman			
Examiner:				Date Considered:			
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO-1449  
(Rev. 8-83)U.S. Department of Commerce  
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(Use several sheets if necessary)

Applicant: Ronald D. Blum et al.

Filing Date: February 5, 2004

Group: Unassigned

**U.S. PATENT DOCUMENTS**

Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	14	4,264,154	4/28/81	Peterson			
	15	4,279,474	7/21/81	Belgorod			
	16	4,300,818	11/17/81	Schachar			
	17	4,373,218	2/15/83	Schachar			
	18	4,395,736	7/26/83	Fräleux			
	19	4,418,990	12/6/83	Gerber			
	20	4,457,585	7/3/84	DuCorday			
	21	4,466,706	8/21/84	Lamothe, II			
	22	4,529,268	7/16/85	Brown			
	23	4,564,267	1/14/86	Nishimoto			
	24	4,572,616	2/25/86	Kowel et al.			
	25	4,577,928	3/25/86	Brown			
	26	4,601,545	7/22/86	Kern			
	27	4,609,824	9/2/86	Munier et al.			
	28	4,712,870	12/15/87	Robinson et al.			
	29	4,756,605	7/12/88	Okada et al.			

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Date Considered:

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Applicant: Ronald D. Blum et al.

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**U.S. PATENT DOCUMENTS**

Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	30	4,772,094	9/20/88	Sheiman			
	31	4,795,248	1/3/89	Okada et al.			
	32	4,818,095	4/4/89	Takeuchi			
	33	4,836,652	6/6/89	Oishi et al.			
	34	4,880,300	11/14/89	Payner et al.			
	35	4,904,063	2/27/90	Okada et al.			
	36	4,907,860	3/13/90	Noble			
	37	4,919,520	4/24/90	Okada et al.			
	38	4,927,241	5/22/90	Kuijk			
	39	4,929,865	5/29/90	Blum			
	40	4,930,884	6/5/90	Tichenor et al.			
	41	4,945,242	7/31/90	Berger et al.			
	42	4,952,788	8/28/90	Berger et al.			
	43	4,958,907	9/25/90	Davis			

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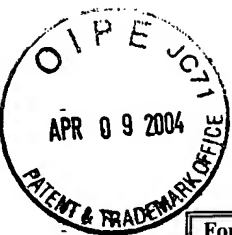
**U.S. PATENT DOCUMENTS**

Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	44	4,961,639	10/9/90	Lazarus			
	45	4,968,127	11/6/90	Russell et al.			
	46	4,981,342	1/1/91	Fiala			
	47	4,991,951	2/12/91	Mizuno et al.			
	48	5,015,086	5/14/91	Okaue et al.			
	49	5,030,882	7/9/91	Solero			
	50	5,066,301	11/19/91	Wiley			
	51	5,073,021	12/17/91	Marron			
	52	5,076,665	12/31/91	Petersen			
	53	5,091,801	2/25/92	Ebstein			
	54	5,108,169	4/28/92	Mandell			
	55	5,130,856	7/14/92	Tichenor et al.			
	56	5,142,411	8/25/92	Fiala			
	57	5,171,266	12/15/92	Wiley et al.			
	58	5,182,585	1/26/93	Stoner			

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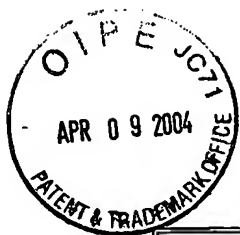
Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	59	5,184,156	2/2/93	Black et al.			
	60	5,200,859	4/6/93	Payner et al.			
	61	5,208,688	5/4/93	Ferguson et al.			
	62	5,229,885	7/20/93	Quaglia			
	63	5,239,412	8/24/93	Naka et al.			
	64	5,306,926	4/26/94	Yonemoto			
	65	5,324,930	6/28/94	Jech, Jr.			
	66	5,352,886	10/4/94	Kane			
	67	5,359,444	10/25/94	Piosenka et al.			
	68	5,375,006	12/20/94	Haas			
	69	5,382,986	1/17/95	Black et al.			
	70	5,440,357	8/8/95	Quaglia			
	71	5,443,506	8/22/95	Gurabet			
	72	5,451,766	9/19/95	Van Berkel			
	73	5,488,439	1/30/96	Weltmann			

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**U.S. PATENT DOCUMENTS**

Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	74	5,522,323	6/4/96	Richard			
	75	5,608,567	3/4/97	Grupp			
	76	5,615,588	4/1/97	Gottschald			
	77	5,654,786	8/5/97	Bylander			
	78	5,712,721	1/27/98	Large			
	79	5,728,155	3/17/98	Anello et al.			
	80	5,739,959	4/14/98	Quaglia			
	81	5,777,719	7/7/98	Williams et al.			
	82	5,815,233	9/29/98	Morokawa et al.			
	83	5,861,936	1/19/99	Sorenson			
	84	5,900,720	5/4/99	Kallman et al.			
	85	5,949,521	9/7/99	Williams et al.			
	86	5,980,037	11/9/99	Conway			
	87	6,325,508	12/4/01	Decreton et al.			

**FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	1	WO 98/27863	7/2/98	WIPO				X
	2	0 154 962 A2	9/18/85	EPO				X

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<b>INFORMATION DISCLOSURE STATEMENT</b>							
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				Filing Date: February 5, 2004		Group: Unassigned	
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Subclass	<u>Translation</u> Yes No
	3	0 233 104 A1	8/19/87	EPO			(Abstract)
	4	0 237 365 A1	9/16/87	EPO			(Abstract)
	5	1-237610	9/22/89	Japan			(Abstract)
	6	2169417A	7/09/86	UK			X
	7	2170613A	8/6/86	UK			X
	8	55-076323	6/9/80	Japan			(Abstract)
Examiner Initial*		<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)					
X	1	"Focusing by Electrical Modulation of Refraction in a Liquid Crystal Cell"; Stephen T. Kowel et al., <i>Applied Optics</i> , Vol. 23, No. 2, January 15, 1984, pp. 278-289					
Y	2	"Computer Vision Syndrome - The Eyestrain Epidemic"; Robert A. Davis, O.D., <i>Review of Optometry</i> , September 15, 1997, pp. 80-88					
X	3	"The Use of Yoked Base-Up and Base-In Prism for Reducing Eye Strain at the Computer"; Stuart M. Lazarus, O.D., <i>Journal of the American Optometric Association</i> , April 1996, pp. 204-208					
X	4	<i>Eyecare Business</i> , October 1997 (entire issue)					
X	5	"Vision Through a Liquid-Crystal Spatial Light Modulator"; Larry N. Thibos et al., <i>Inpress</i> , Adaptive Optics Conference, Durham, United Kingdom, 1999					
X	6	"Requirements for Segmented Spatial Light Modulators for Diffraction-Limited Imaging Through Aberrated Eyes"; Larry N. Thibos et al., <i>Inpress</i> , Adaptive Optics Conference, Durham, United Kingdom, 1999					
Y	7	"Use of Liquid-Crystal Adaptive-Optics to Alter the Refractive State of the Eye"; Larry N. Thibos et al., <i>Optometry and Vision Science</i> , Vol. 74, No. 7, July 1997					
X	8	"Electronic Spectacles for the 21 <sup>st</sup> Century", <i>Indiana Journal of Optometry</i> , Vol. 2, No. 1, 1999					
X	9	"Profile: Larry N. Thibos, Ph.D. and Donald Miller, Ph.D.", <i>Indiana Journal of Optometry</i> , Vol. 2, No. 1, pp. 5-10, 1999					
Examiner:					Date Considered:		
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<b>U.S. PATENT DOCUMENTS</b>							
Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	1	4,787,733	11/29/88	Silva			
	2	4,919,520	04/24/90	Okada et al.			
	3	5,050,981	09/24/91	Roffman			
	4	5,114,628	05/19/92	Höfer et al.			
	5	5,682,223	10/28/97	Menezes et al.			
	6	5,712,721	01/27/98	Large			
	7	5,815,239	09/29/98	Chapman et al.			
	8	5,953,098	09/14/99	Lieberman et al.			
	9	6,086,204	07/11/00	Magnante			
	10	6,095,651	08/01/00	Williams et al.			
	11	6,145,987	11/14/00	Baude et al.			
	12	6,305,802	10/23/01	Roffman et al.			
	13	6,554,425	04/29/03	Roffman et al.			
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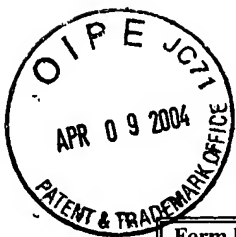
**U.S. PATENT DOCUMENTS**

Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	14	6,609,794	08/26/03	Levine			
	15	6,616,275	09/09/03	Dick et al.			
	16	6,616,279	09/09/03	Davis et al.			
	17	6,631,001	10/07/03	Kuiseko			

**FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Subclass	<u>Translation</u> Yes No	
X	1	10366043	12/09/98	JP			X	
X	2	PCT/US91/04976	07/15/91	PCT				
X	3	PCT/US97/21688	11/21/97	PCT				
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X Did not receive



Sheet 10 of 10

Form PTO-1449  
(Rev. 8-83)U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.:  
63049.001012Application No.:  
10/772,917**INFORMATION DISCLOSURE STATEMENT**

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2004

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**FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

Examiner  
Initial\***OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

X	1	"Control Optimization of Spherical Modal Liquid Crystal Lenses"; A. F. Naumov and G. D. Love, <i>Optics Express</i> , Vol. 4, No. 9, April 26, 1999, pp. 344-352
X	2	"Liquid Crystal Adaptive Lenses with Modal Control"; A. F. Naumov and M. Yu Loktev, <i>Optics Letters</i> , Vol. 23, No. 13, July 1, 1998, pp. 992-994
X	3	"Liquid Lenses Eye Commercial Breakthrough" (Internet Article under "Optics.org"); from <i>Opto &amp; Laser</i> , November 2003

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Application No.: 10/772,917	)	Group Art Unit: Unassigned
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Filing Date: February 5, 2004	)	Examiner: Unassigned
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Title: METHOD AND APPARATUS FOR	)	
CORRECTING VISION USING	)	
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PHOROPTER	)	

**CERTIFICATE OF EXPRESS MAILING UNDER 37 C.F.R. §1.10**

Commissioner for Patents  
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Alexandria, VA 22313-1450

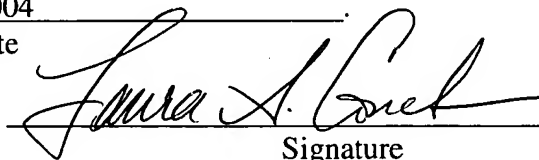
Sir:

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Alexandria, VA 22313-1450

on April 9, 2004  
Date



Signature

Laura A. Couch

Typed or printed name of person signing Certificate

Documents being submitted with this Certificate of Express Mailing include:

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- Information Disclosure Statement
- PTO-1449 Form (10 pages)
- Self Addressed Stamped Return Postcard

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Richmond, VA 23219  
(804) 788-8200 (Telephone)  
(804) 344-7999 (Facsimile)